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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/582,483	06/21/2000	TOSHIKAZU KOBAYASHI	AD-6547-A	3461

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HANH P PHAM
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LEGAL PATENTS
WILMINGTON, DE 19898

EXAMINER

SHOSHO, CALLIE E

ART UNIT	PAPER NUMBER
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1714

DATE MAILED: 02/26/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/582,483

Applicant(s)

KOBAYASHI, TOSHIKAZU *Not*

Examiner

Callie E. Shosho

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 8.

- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Specification

1. As previously set forth in paragraph 1 of the office action mailed 5/10/01, Paper No.5, it is noted that this application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.

Claim Rejections - 35 USC § 102

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 8,10, 16, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 01245045.

The rejection is adequately set forth in paragraph 3 of the office action mailed 5/10/01, Paper No. 5, and is incorporated here by reference.

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
5. Claims 1-2, 5, and 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda et al. (U.S. 5,886,098).

The rejection is adequately set forth in paragraph 5 of the office action mailed 5/10/01, Paper No.5, and is incorporated here by reference.

With respect to newly added claims 12-13, it is noted that col.7, lines 38-53 and col.8, lines 1-8 of Ueda et al. disclose the use of alkali metal or alkaline earth metal salt of sulfonic acid wherein the alkali metal include sodium, lithium, and potassium and the sulfonic acid has, for instance, 31 carbon atoms (when $n=0$ and R_2 is a hydrocarbon with 24 carbon atoms).

6. Claims 3-4, 7, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda et al. as applied to claims 1-2, 5, and 12-13 above, and further in view of either Mukohyama (U.S. 5,700,857) or Brink et al. (U.S. 5,624,987).

The rejection is adequately set forth in paragraph 6 of the office action mailed 5/10/01, Paper No.5, and is incorporated here by reference.

7. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda et al. as applied to claims 1-2, 5, and 12-13 above, and further in view of JP 01163252.

The rejection is adequately set forth in paragraph 7 of the office action mailed 5/10/01, Paper No.5, and is incorporated here by reference.

8. Claims 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda et al. as applied to claims 1-2, 5, and 12-13 above, and further in view of Mukohyama (U.S. 5,700,857).

The difference between Ueda et al. and the present claimed invention is the requirement in the claims of specific ion source.

Mukohyama, which is drawn to resin composition disclose the use of ionomer such as sodium salt of ethylene/methacrylic acid copolymer as well as ion source comprising (i) at least one source of carboxyl groups selected from the group consisting hydrocarbon acid containing 7-54 carbon atoms and polymers having at least one attached carboxyl group and (ii) at least one source of metal ions selected from sodium and potassium ion sources that react with the carboxyl groups of (i). The motivation for using such ion sources it as crystallization promoters to increase the crystallization and produce composition with excellent impact strength and high surface gloss (col.2, lines 4-16, col.3, line 65-col.4, line 31, col.5, lines 30-32, and col.7, lines 6-12).

In light of the motivation for using specific ion source disclosed by Mukohyama as described above, it therefore would have been obvious to one of ordinary skill in the art to use such ion source in the antistatic composition of Ueda et al. in order to produce a composition with excellent impact strength and high surface gloss, and thereby arrive at the claimed invention.

9. Claims 8, 10, 16, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda et al. (U.S. 5,886,098).

The rejection is adequately set forth in paragraph 8 of the office action mailed 5/10/01, Paper No. 5, and is incorporated here by reference.

10. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda et al. as applied to claims 8, 10, 16, and 19 above, and further in view of Buysch et al. (U.S. 4,920,166).

The rejection is adequately set forth in paragraph 9 of the office action mailed 5/10/01, Paper No. 5, and is incorporated here by reference.

11. Claims 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda et al. as applied to claims 8, 10, 16, and 19 above, and further in view of either Mukohyama (U.S. 5,700,857) or Brink et al. (U.S. 5,624,987).

The difference between Ueda et al. and the present claimed invention is the requirement in the claims of specific type and amount of plasticizer.

Ueda et al. disclose antistatic composition comprising 3-40% polyetheresteramide, 60-90% polymer such as ABS and EPDM, 0.2-20% ion source, and plasticizer. However, there is no explicit disclosure of the specific type and amount of plasticizer used as presently claimed.

Mukohyama, which is drawn to resin composition, disclose the use of 0.1-10% plasticizer identical to that presently claimed, such as polyethylene glycol di-2-ethyl hexoate, in order to maintain the mechanical characteristics of the composition and control crystallization rate and molding temperature of the composition (col.3, lines 17-50).

Alternatively, Brink et al., which is drawn to plasticizers, disclose the use of 0.5-25% plasticizer identical to that presently claimed such as polyethylene glycol bis(2-ethyl hexanoate), in order to improve moldability (col.1, lines 42-45 and col.4, lines 7-38).

In light of the motivation for using specific type and amount of plasticizer disclosed by either Mukohyama or Brink et al. as described above, it therefore would have been obvious to

one of ordinary skill in the art to use such plasticizer in the antistatic composition of Ueda et al. in order to produce a composition with good mechanical properties and suitable crystallization rate and molding temperature, or alternatively, a composition with good moldability, and thereby arrive at the claimed invention.

12. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda et al. as applied to claims 8, 10, 16, and 19 above, and further in view of JP 01163252.

The difference between Ueda et al. and the present claimed invention is the requirement in the claim of specific type of molded article.

Ueda et al. disclose that the antistatic composition is used in molded articles but there is no explicit disclosure that the molded article is a transfer medium-separating guide part for electrophotographic devices.

On the one hand, given the broad disclosure of antistatic molded articles by Ueda et al., it would have been obvious to one of ordinary skill in the art to use such molded article in any device which required antistatic properties including transfer medium-separating guide part for electrophotographic devices, and thereby arrive at the claimed invention.

On the other hand, JP 01163252 disclose that antistatic compositions comprising polyether esteramide are used in copiers and for parts of electric appliances and machines, which clearly encompasses transfer medium-separating guide part for electrophotographic devices.

In light of the disclosure of JP 01163252, it therefore would have been obvious to one of ordinary skill in the art that the antistatic composition of Ueda et al. can in fact function as

transfer medium-separating guide part for electrophotographic devices, and thus, one of ordinary skill in the art would have arrived at the claimed invention.

Response to Arguments

13. Applicant's arguments filed 11/13/01 have been fully considered but they are not persuasive.

Specifically, applicant argues that:

(a) while JP 0125045 disclose the use of plasticizer, there is no disclosure that the plasticizer is for the ion-conductive polyether-based polymer as presently claimed.

(b) Ueda et al. do no disclose ion source as presently claimed, but rather disclose compatibilizer which may contain ion source.

(c) Ueda et al. lists plasticizer in laundry list of optional ingredients from which there is no motivation to pick and choose the plasticizer.

(d) Comparative data in Table 1 of the present specification establishes unexpected or surprising results over the cited prior art.

With respect to argument (a), while JP 0125045 does disclose that the plasticizers show good compatibility with ABS resin, this does not exclude the plasticizers from also being plasticizers for the polyether esteramide. Further, page 4, paragraph 5 of JP 0125045 disclose that if the amount of plasticizer is too low, the resin composition will be tacky and impossible to form into a sheet while if the amount of plasticizer is too high, the appearance of the sheet is poor. Thus, it is clear that the plasticizer functions as a plasticizer for the entire composition

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including the polyether esteramide, not just the ABS. Additionally, it is noted that the present claims are not drawn to a plasticizer, but rather to a composition which includes a plasticizer which is clearly disclosed by JP 0125045.

In light of the above, JP 0125045 remains a relevant reference against the present claims.

With respect to argument (b), it is noted that regardless of what it is called, i.e. compatibilizer or ion source, Ueda et al. disclose alkali metal or alkaline earth metal salt of sulfonic acid which is identical to the ion source as presently claimed. Further, Ueda et al. disclose that the compatibilizer is made from monomers comprising functional groups and then lists 7 functional groups including those which provide a source of carboxyl or sulfo groups. Further preparation example 1 (col.17, line 65-col.18, line 10) disclose ion source as presently claimed. In light of the above, it is the examiner's position that there is motivation to use ion source as presently claimed.

With respect to argument (c), while plasticizer is listed among a group of additives, given that the plasticizer is an additive which is known to be conventionally used in such composition as disclosed by Ueda et al. such additive would naturally appear in a list with other known additives. The fact remains that Ueda et al. do disclose the use of plasticizer as presently claimed. In light of this, and given that plasticizers are such well known additives, it is the examiner's position that it would have been within the skill level of one of ordinary skill in the art to use plasticizer in the composition of Ueda et al., and thereby arrive at the claimed invention.

With respect to argument (d), applicant points to Table 1 of the specification, specifically inventive example 1, wherein the composition comprises plasticizer, and comparative example CE 5, wherein the composition does not comprise plasticizer, and argues that in light of the fact that the inventive composition shows better antistatic properties, i.e. lower surface resistivity and volume resistivity, than the composition without plasticizer, the data establishes unexpected or surprising results over the cited prior art.

However, given that Ueda et al. already disclose the use of plasticizer as presently claimed, and further given that Ueda et al. already disclose composition with surface resistivity as presently claimed, it is the examiner's position that the data pointed to by the applicant does not establish unexpected or surprising results over Ueda et al.

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 703-305-0208. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 703-306-2777. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



Callie Shosho
February 22, 2002



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